WHAT IS CLAIMED IS:

1. A rib for a storage tank comprising:

a rib body in the shape of a toroid;

wherein the rib body has a cross section defined by a trunk section with a proximal end and a distal end and two branch sections connected to the proximal end, the branch sections being positioned to result in the cross section being in the shape of a "Y"

the distal end being on the interior of the toroid.

2. The rib of Claim 1, wherein the rib body comprises fiberglass.

3. The rib of Claim 2, wherein the rib body further comprises a high modulus material.

4. The rib of Claim 3, wherein the high modulus material is steel.

5. The rib of Claim 3, wherein the high modulus material is graphite.

6. The rib of Claim 3, wherein the high modulus material is titanium.

7. The rib of Claim 3, wherein the high modulus material is boron.

8. The rib of Claim 3, wherein the high modulus material is present in the trunk section.

9. The rib of Claim 3, wherein the high modulus material is present in at least one branch section.

10. The rib of Claim 3, wherein the high modulus material is present throughout the rib body.

11. The rib of Claim 1, wherein the distal end has a notch formed therein sized and shaped to accept a high modulus material.

Sub. a'5 12. The rib of Claim 11, wherein the notch has a semicircular cross sectional shape and the high modulus material is in the form of a curved rod with a semicircular cross sectional shape.

13. The rib of Claim11, wherein the high modulus material comprises a reinforcing bar.

14. A storage tank comprising:

a first wall having a cylindrical shape;

a layer of annular material having a first face and a second face, the first face being adjacent to a surface of the first wall;

a rib positioned over the second face of the layer of annular material, the rib having a rib body in the shape of a toroid, the toroid having a cross section defined by a trunk section with a proximal end and a distal end and two branch sections connected to the proximal end, the branch sections being positioned to result in the cross section being in the shape of a "Y", the distal end being on the interior of the toroid; and

a second wall in a close spatial relationship to the first wall covering at least a portion of the rib and portions of the second face of the layer of annular material not covered by the rib;

wherein the annular material provides an annulus through which fluid may flow between the inner wall and the outer wall and underneath the rib.

15. The tank of Claim 14, further comprising an alarm system including at least one sensor in fluid communication with the annulus.

16. The tank of Claim 15, wherein the alarm system is a dry alarm system.

17. The tank of Claim 15, wherein the alarm system is a wet alarm system.

18. The tank of Claim 15, wherein the alarm system is a pressure alarm system.

19. The tank of Claim 15, wherein the alarm system is a vacuum alarm system.

20. The tank of Claim 15, wherein the annular material is a distance fabric.

21. The tank of Claim 15, wherein the annular material is a plastic film.

22. The tank of Claim 21, further comprising a layer of distance fabric between the first wall and portions of the plastic film not covered by the rib.

23. The tank of Claim 15, wherein the rib body further comprises a high modulus material.

24. The tank of Claim 23, wherein the high modulus material is steel.

25. The tank of Claim 23, wherein the high modulus material is graphite.

26. The tank of Claim 14, wherein the distal end has a notch formed therein sized and shaped to accept a high modulus material.

Sub. Q2 27. The tank of Claim 26, wherein the notch has a semicircular cross sectional shape and the high modulus material is in the form of a curved rod with a semicircular cross sectional shape.

28. The tank of Claim26, wherein the high modulus material comprises a reinforcing bar.

29. The tank of Claim 14, wherein the first wall is an outer wall of the tank.

30. The tank of Claim 14, wherein the first wall is an inner wall of the tank.

31. A storage tank comprising:

a first wall having a cylindrical shape;

a rib, the rib having a rib body in the shape of a toroid, the rib body having a cross section defined by a trunk section with a proximal end and a distal end and two branch sections connected to the proximal end, the branch sections being positioned to result in the cross section being in the shape of a "Y", the distal end being on the interior of the toroid,

each of the branches having an upper surface, the upper surface being in contact with a first surface of the first wall, a space bound by the branches and the first wall forming a rib annulus;

a layer of annular material over those portions of the first surface of the first wall not covered by the rib, the annular material forming a material annulus; and

a second wall in a close spatial relationship to the first wall, the second wall covering at least a portion of the rib and portions of the annular material not covered by the rib;

wherein the tank has a gutter formed along a length of the tank, the gutter being in fluid communication with the rib annulus and the material annulus such that fluid may flow everywhere between the first wall and second wall except where an upper surface is in contact with the first wall.

32. The tank of Claim 31, wherein upper surfaces of the rib are bonded to the first wall.

33. The tank of Claim 31, further comprising an alarm system including at least one sensor in fluid communication with the annulus.

34. The tank of Claim 33, wherein the alarm system is a dry alarm system.

35. The tank of Claim 33, wherein the alarm system is a wet alarm system.

36. The tank of Claim 33, wherein the alarm system is a pressure alarm system.

37. The tank of Claim 33, wherein the alarm system is a vacuum alarm system.

38. The tank of Claim 33, wherein the annular material is a distance fabric.

39. The tank of Claim 33, wherein the annular material is a plastic film.

40. The tank of Claim 33, wherein the rib body further comprises a high modulus material.

41. The rib of Claim 40, wherein the high modulus material is steel.

42. The rib of Claim 40, wherein the high modulus material is graphite.

43. The tank of Claim 31, wherein the annular material extends at least a portion of the branches such that the annular material extends over the rib annulus.

44. The tank of Claim 31, wherein the distal end has a notch formed therein sized and shaped to accept a high modulus material.

Sub. a3 > 45. The tank of Claim 44, wherein the notch has a semicircular cross sectional shape and the high modulus material is in the form of a curved rod with a semicircular cross sectional shape.

46. The tank of Claim 45, wherein the high modulus material comprises a reinforcing bar.

47. The tank of Claim 31, wherein the first wall is an outer wall of the tank.

48. The tank of Claim 31, wherein the first wall is an inner wall of the tank.

49. A method for making a rib comprising the steps of:

providing a cylindrical mold, the mold having a helical channel formed therein, the channel having a top and a bottom;

depositing a rib body material in the channel;

placing a spacer in the channel below the top such that no rib body material is present in a space occupied by the spacer;

cutting the rib body material along a length of the mold such that a toroidal rib segment is formed, the toroidal rib segment having a first end and a second end; and

connecting the first end and the second end of the toroidal rib segment,

wherein the shape of the channel together with the shape and positioning of the spacer result in a channel having a "Y" cross sectional shape.

50. The method of Claim 49, wherein the rib body material is fiberglass.

51. The method of Claim 50, further comprising the step of allowing the fiberglass to cure before performing the cutting step.

52. The method of Claim 49, further comprising the step of depositing a high modulus material in the channel.

53. The method of Claim 52, wherein the high modulus material is steel.

54. The method of Claim 52, wherein the high modulus material is graphite.

55. The method of Claim 52, wherein the high modulus material is titanium.

56. The method of Claim 52, wherein the high modulus material is boron.

57. A storage tank comprising:

a first wall having a cylindrical shape;

a layer of annular material having a first face and a second face, the first face being adjacent to a surface of the first wall;

a plurality of ribs positioned over the second face of the layer of annular material; and

a second wall in a close spatial relationship to the first wall;

wherein the annular material provides an annulus through which fluid may flow between the inner wall and the outer wall and underneath the ribs, the annular material including a distance fabric having a thickness, a spacing between adjacent ribs being greater than a spacing between ribs for a tank in which distance fabric is not used.

58. The tank of Claim 57, wherein the thickness of the distance fabric is approximately one quarter of an inch and the spacing between ribs is approximately twice as much as the spacing between ribs for a tank in which distance fabric is not used.

59. The tank of Claim 58, wherein the ribs are spaced approximately thirty two inches apart.

60. The tank of Claim 57, wherein the thickness of the distance fabric is approximately three eighths of an inch and the spacing between ribs is approximately three times as much as the spacing between ribs for a tank in which distance fabric is not used.

61. The tank of Claim 60, wherein the ribs are spaced approximately forty eight inches apart.

62. The tank of Claim 57, wherein the rib is partially covered by the second wall.

63. The tank of Claim 57, wherein the rib is completely covered by the second wall.

64. The tank of Claim 57, wherein no portion of the rib is covered by the second wall.

65. A storage tank comprising:

a first wall having a cylindrical shape, the first wall having a first surface;

a plurality of ribs positioned over the first surface of the first wall;

a layer of distance fabric positioned between the ribs and over the first surface of the first wall;

a second wall in a close spatial relationship to the first wall, the second wall covering the layer of distance fabric;

wherein a spacing between adjacent ribs is greater than a spacing between ribs for a tank in which distance fabric is not used.

66. The tank of Claim 65, wherein the distance fabric extends over a portion of each of the ribs.

67. The tank of Claim 66, further comprising an annular material positioned between the first surface of the first wall and the distance fabric and the ribs.

68. The tank of Claim 67, wherein the rib has a rib body in the shape of a toroid, the rib body having a cross section defined by a trunk section with a proximal end and a distal end and two branch sections connected to the proximal end, the branch sections being

positioned to result in the cross section being in the shape of a "Y", the distal end being on the interior of the toroid.

69. A tank comprising:

a first wall; and

a rib integrally formed with the first wall, the rib having a rib body including a distal end, the distal end including a high modulus material relative to a material comprising other portions of the rib body.

70. The tank of Claim 69, wherein the high modulus material comprises reinforcing bar and the rib body comprises fiberglass.

71. The tank of Claim 69, further comprising a second wall in a closely-spaced relationship to the first wall.

72. The tank of Claim 71, wherein the first wall is an outer wall and the rib is external.